

Commonwealth of Kentucky
Division for Air Quality
EXECUTIVE SUMMARY

Proposed Permit
Title V, Construction / Operating
Permit: V-03-026 R1
Kentucky Hydrocarbons, Inc.
Langley, KY 41645
June 20, 2007

Sukhendu K. Majumdar, Reviewer

SOURCE ID:	21-071-00140
SOURCE A.I. #:	38048
ACTIVITY ID:	APE20070001

SOURCE DESCRIPTION:

On February 26, 2007, the permittee applied to the Division for the construction/operation of a new natural gas liquid (NGL) plant at the existing Langley, Kentucky site. The new NGL plant will consist of the NGL extraction system and associated equipment. The NGL process will be used to segregate NGL components (i.e., propane, butane, pentane, and other residual components) from natural gas received at the facility. Equitable Production Company (Equitable), d.b.a. Kentucky Hydrocarbon, Inc., currently operates natural gas compression units that pressurize natural gas entering the facility via pipelines. The pressurized natural gas stream is liquefied and segregated into NGL components in an existing NGL extraction plant, which is owned and operated by MarkWest Hydrocarbons, Inc. (MarkWest).

Proposed Construction Project:

Equitable is proposing to construct a new NGL plant at the Langley facility. The new NGL plant will consist of the NGL extraction system and associated equipment. The new extraction plant will be similar to the existing extraction plant operated by MarkWest. However, the proposed extraction plant will be of a cryogenic type. The new system will also consist of an expander and compressor as part of the refrigeration system. This will result in higher refrigeration capacity and recovery efficiencies. All components of the NGL plant will be closed units with no emissions to the atmosphere.

There will be two new inlet gas compressors that will compress the inlet gas to a desired pressure for further processing in the new NGL extraction plant. In addition, three new gas compressors will be installed to provide the pressure needed to distribute the product gas stream from the plant to the pipeline. These compressors will be driven by electric motors and thus there will be no fuel combustion emissions associated with these units. The potential VOC emissions from each fugitive equipment type are calculated and summed to obtain the total potential VOC emissions for the new extraction system.

One new natural gas fired regenerative heater will also be installed as part of the new NGL extraction unit. The maximum heat input capacity of the heater will be 15 mmBtu/hr. Two new identical pressurized horizontal storage tanks will be constructed at the Langley facility as part of the project to hold NGL product. Each tank will have a storage capacity of 30,000 gallons. The length and internal diameter of each tank will be 57 ft and 9 ft, respectively. Since the tanks will be pressurized, there will be no emissions to ambient air associated with the tanks under normal operating scenario. Therefore these tanks are listed as insignificant activities in the permit.

PUBLIC AND AFFECTED STATE REVIEW:

On May 16, 2007, the public notice on availability of the draft permit and supporting material for comments by persons affected by the plant was published in *Prestonsburg Floyd County Times* in Prestonsburg, Kentucky. The public comment period has expired 30 days from the date of publication. West Virginia and Virginia are within 50 miles of the facility.

No comments were received during this period. Therefore, the Division has made a final determination to issue a proposed permit. The proposed permit will become final upon approval of the EPA in forty-five (45) days.